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## ACRONYMS, ABBREVIATIONS, AND USE OF SCIENTIFIC NOTATION

### Acronyms

AEC	U.S. Atomic Energy Commission
AIFRA	American Indian Religious Freedom Act
CEQ	Council on Environmental Quality
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CMS/FS	Corrective Measures Study/Feasibility Study
COC	Contaminants of Concern
COPC	Contaminants of Potential Concern
CX	Categorical Exclusion
DOE	U.S. Department of Energy
EA	Environmental Assessment
EEC	Environmental Evaluation Checklist
EIS	Environmental Impact Statement
EPA	U.S. Environmental Protection Agency
ERA	Ecological Risk Assessment
FERC	Federal Energy Regulatory Commission
FFA	Federal Facility Agreement
FR	Federal Register
HAZWRAP	Hazardous Waste Remedial Action Program
HI	Hazard Index
HPGe	High-purity germanium
HQ	Hazard Quotient
IOU	Integrator Operable Units
LOAEL	Lowest Observable Adverse Effects Level
MEPAS	Multimedia Environmental Pollutant Assessment System
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service
NOAEL	No Observable Adverse Effects Level
NPDES	National Pollutant Discharge Elimination System
NTU	Nephelometer turbidity units
O&M	Operation and Maintenance

PCB	Polychlorinated Biphenyls
PM <sub>10</sub>	Particulate matter less than 10 microns in diameter
RCRA	Resource Conservation and Recovery Act
RFI/RI	RCRA Facility Investigation/Remedial Investigation
RGO	Remedial Goal Options
ROD	Record of Decision
SCDHEC	South Carolina Department of Health and Environmental Control
SE	Site Evaluation
SEA	Special Environmental Analysis
SEL	Severe Effects Level
SRS	Savannah River Site
SWTP	Sanitary Wastewater Treatment Plant
TAL	Target Analyte List
TCL	Total Chlorinated Hydrocarbon Organics
TRV	Toxicity Reference Value
TSS	Total Suspended Solids
USACE	U.S. Army Corps of Engineers

### **Abbreviations for Measurements**

cfm	cubic feet per minute
cfs	cubic feet per second = 448.8 gallons per minute = 0.02832 cubic meter per second
cm	centimeter
g	acceleration of gravity = 32.17 feet per square second
gpm	gallons per minute
kg	kilogram
L	liter = 0.2642 gallon
lb	pound = 0.4536 kilogram
mg	milligram
μ	micron
μCi	microcurie
μg	microgram
pCi	picocurie
°C	degrees Celsius = 5/9 (degrees Fahrenheit – 32)
°F	degrees Fahrenheit = 32 + 9/5 (degrees Celsius)

## Use of Scientific Notation

Very small and very large numbers are sometimes written using "scientific notation" or "E-notation" rather than as decimals or fractions. Both types of notation use exponents to indicate the power of 10 as a multiplier (i.e.,  $10^n$ , or the number 10 multiplied by itself "n" times;  $10^{-n}$ , or the reciprocal of the number 10 multiplied by itself "n" times).

For example:  $10^3 = 10 \times 10 \times 10 = 1,000$

$$10^{-2} = \frac{1}{10 \times 10} = 0.01$$

In scientific notation, large numbers are written as a decimal between 1 and 10 multiplied by the appropriate power of 10:

4,900 is written  $4.9 \times 10^3 = 4.9 \times 10 \times 10 \times 10 = 4.9 \times 1,000 = 4,900$

0.049 is written  $4.9 \times 10^{-2}$

1,490,000 or 1.49 million is written  $1.49 \times 10^6$

A positive exponent indicates a number larger than or equal to one, a negative exponent indicates number less than one.

In some cases, a slightly different notation ("E-notation") is used, where " $\times 10$ " is replaced by "E" and the exponent is not superscripted. Using the above examples

$$4,900 = 4.9 \times 10^3 = 4.9\text{E}+03$$

$$0.049 = 4.9 \times 10^{-2} = 4.9\text{E}-02$$

$$1,490,000 = 1.49 \times 10^6 = 1.49\text{E}+06$$